Atty. Docket No. FLA09 P-300

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| Appln. No. | : | 10/789,204 |
| Applicant | : | Dale A. Flanery et al. |
| Art Unit | : | 3751 |
| Confirmation No. | : | 9060 |
| Filing Date | : | February 27, 2004 |
| For | : | EXTENDABLE SELF-CONTAINED CLEANING DEVICE |

Commissioner for Patents
P O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

DECLARATION UNDER 37 C.F.R. § 1.131

We, the undersigned, declare as follows:

(1) We are the co-inventors of all of the claims of the above-identified patent application.

(2) Prior to January 27, 2003, we conceived of the invention as defined in claims 1-67. Evidence of our conception is provided in the form of mechanical drawings (copy attached as Exhibit A) that we prepared following our conception. The mechanical drawings are dated before January 27, 2003.

(3) Prior to January 27, 2003, we also reduced to practice the invention as defined in claims 1-67 by making a prototype of the device according to the mechanical drawings of Exhibit A referenced in (2) above. Evidence of our reduction to practice is provided in the form of test results dated January 23, 2003 presented to us by Craft Technical Services for confidential tests

(copy attached as Exhibit B) done on the device according to claims 1-67 and the mechanical drawings of Exhibit A referenced in (2) above.

(4) All of the above activities outlined above occurred in the United States.

The undersigned hereby declare that all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

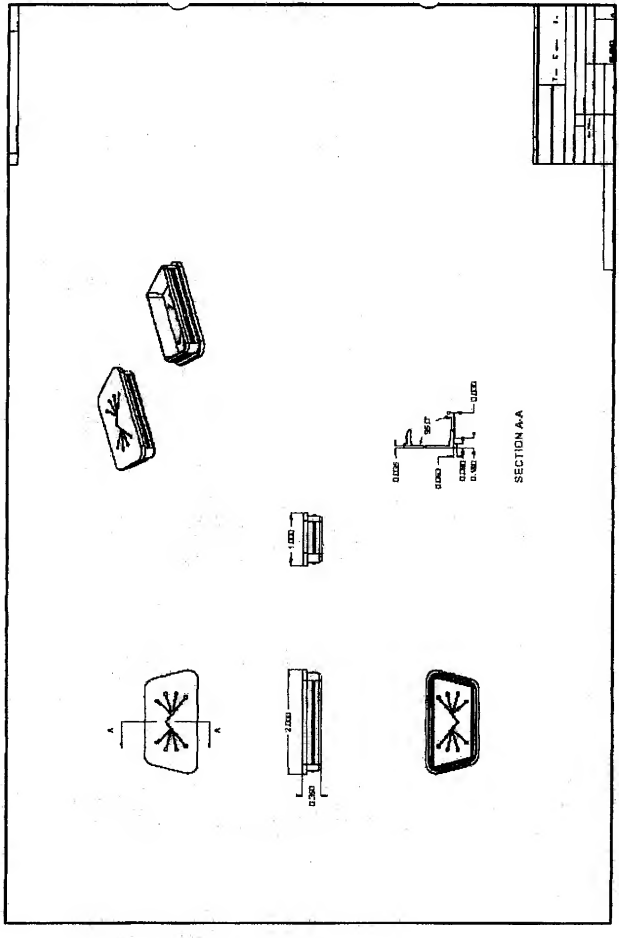
By: _____
Dale A Flanery

6/23/06
Dated

By: _____
Samuel L. Flanery

6/23/06
Dated

# EXHIBIT A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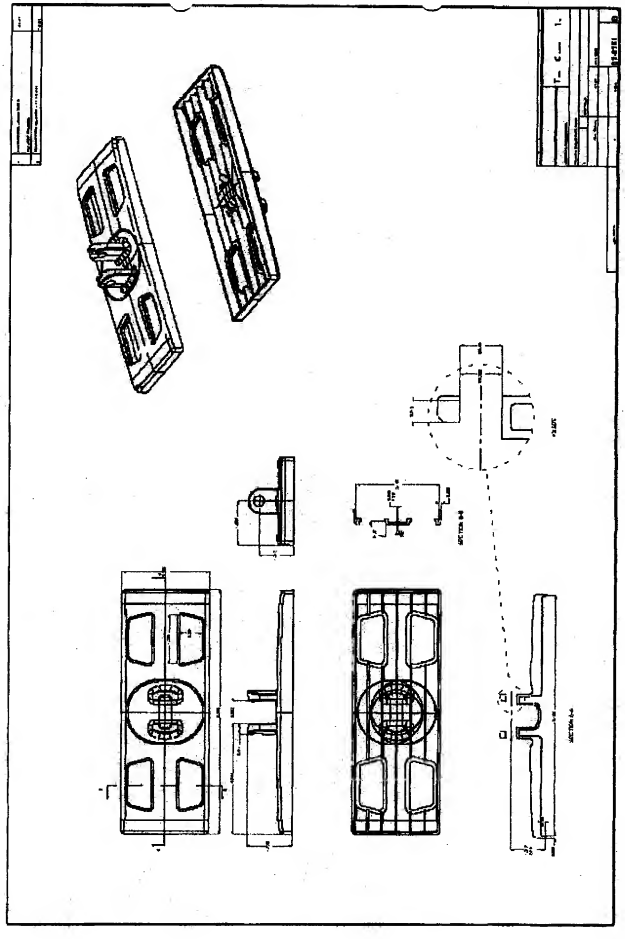

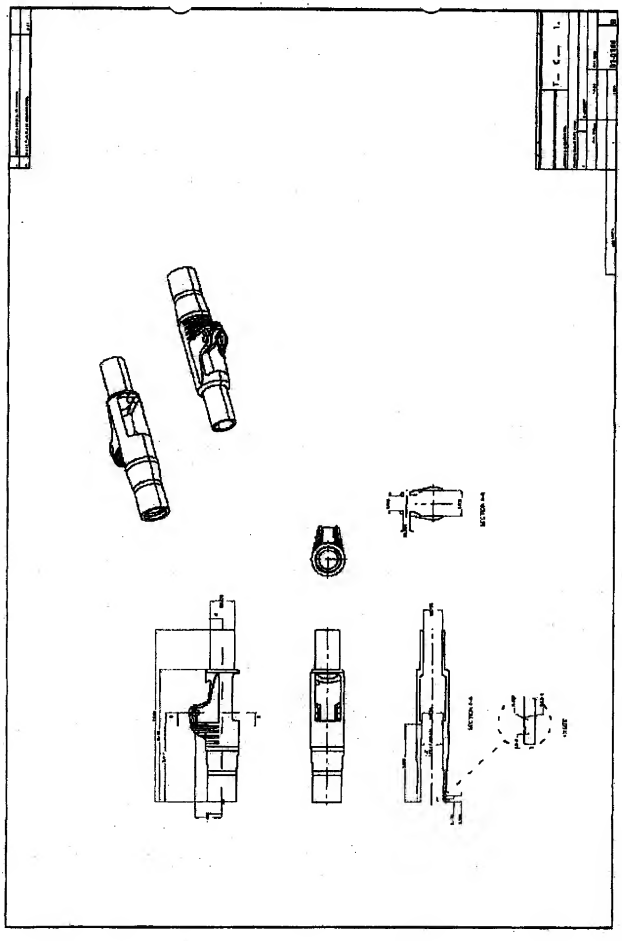

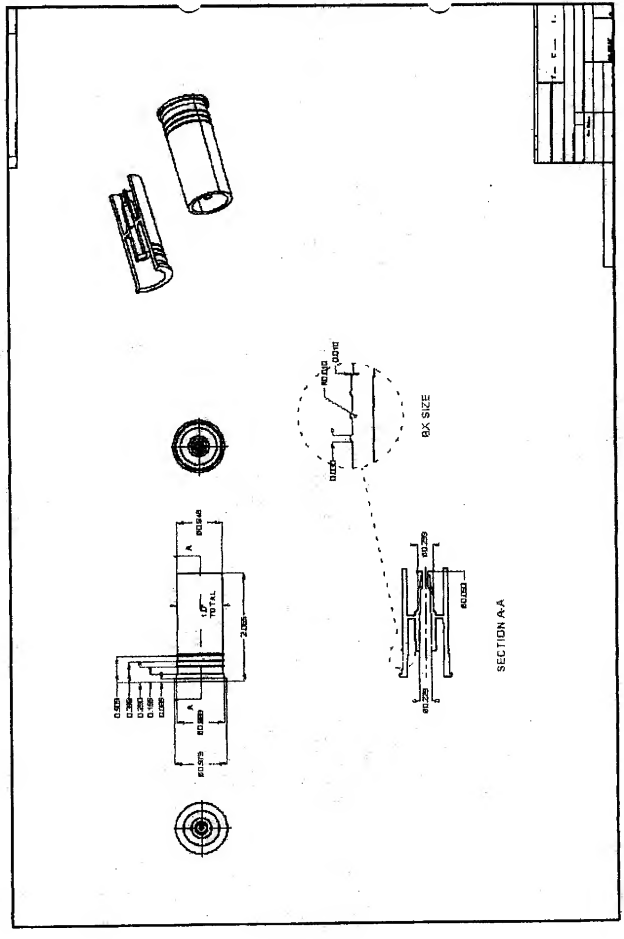
8X SIZE
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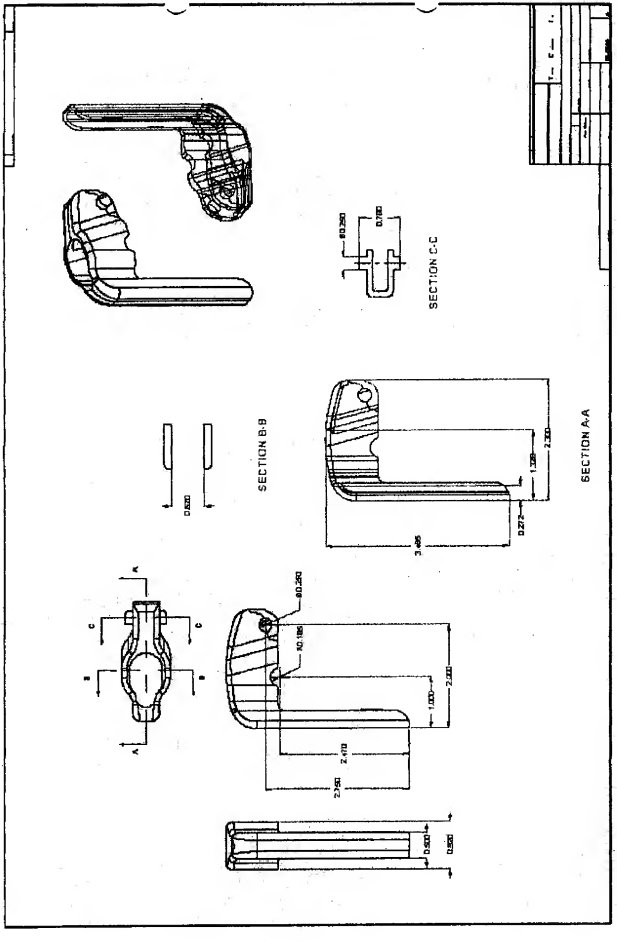
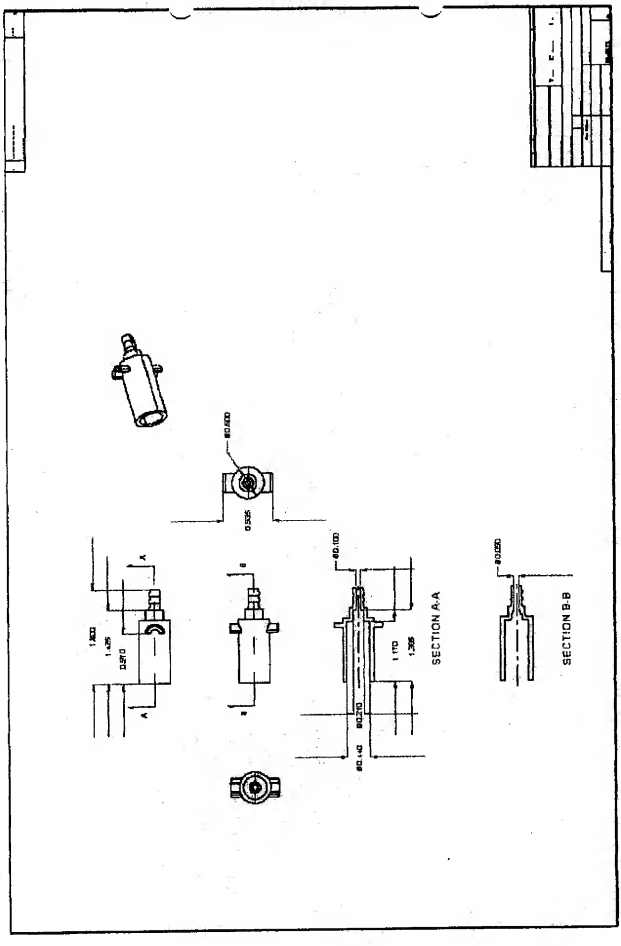

SECTION C-C
SECTION B-B
SECTION A-A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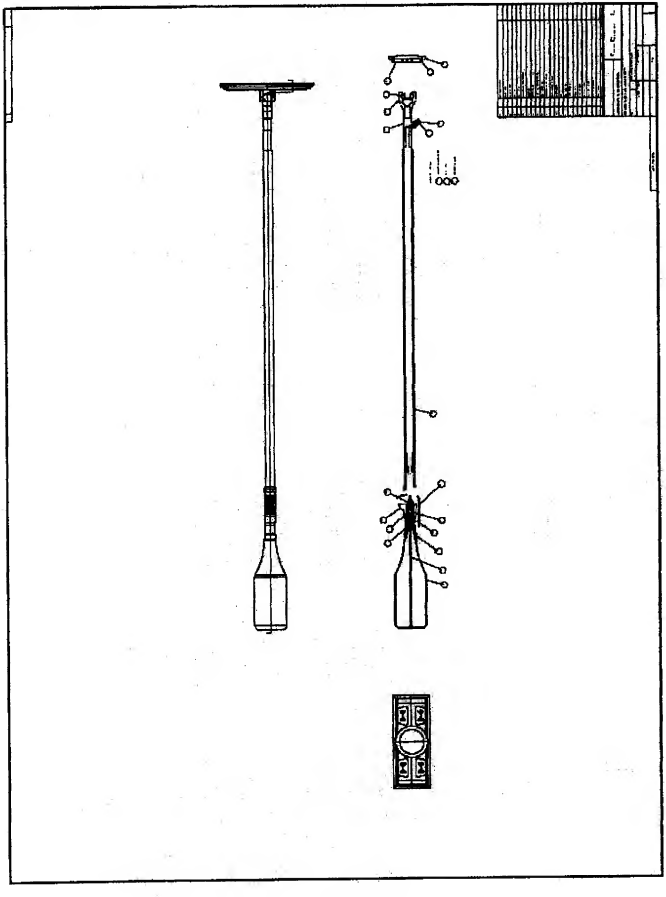
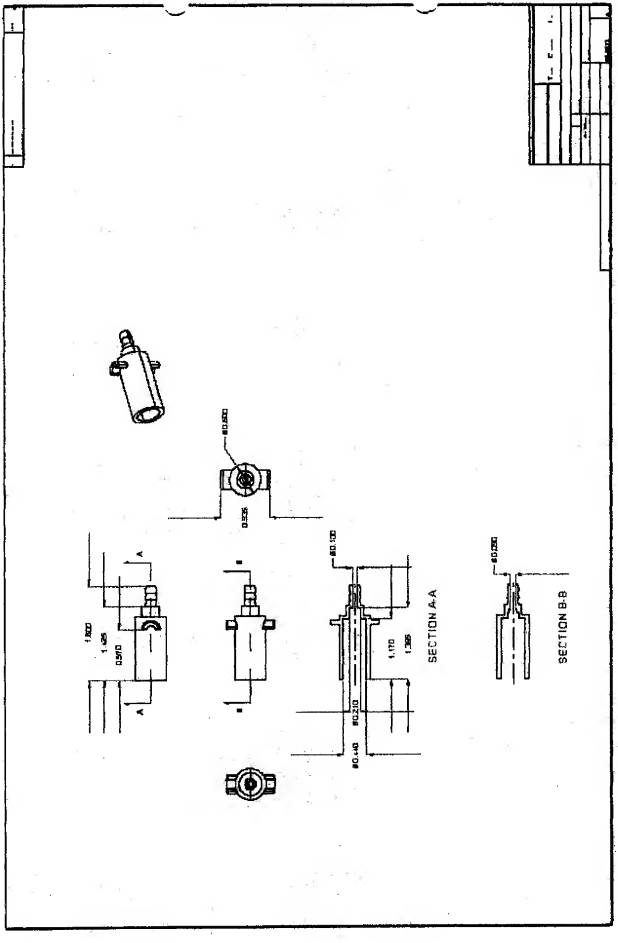
SECTION B-B

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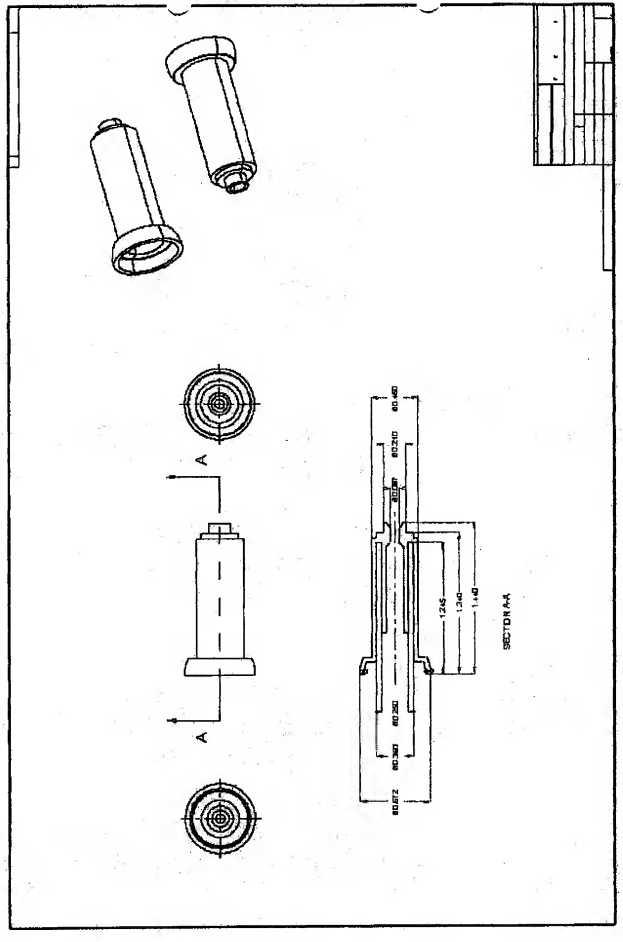
SECTION B-B


A
A
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1.245
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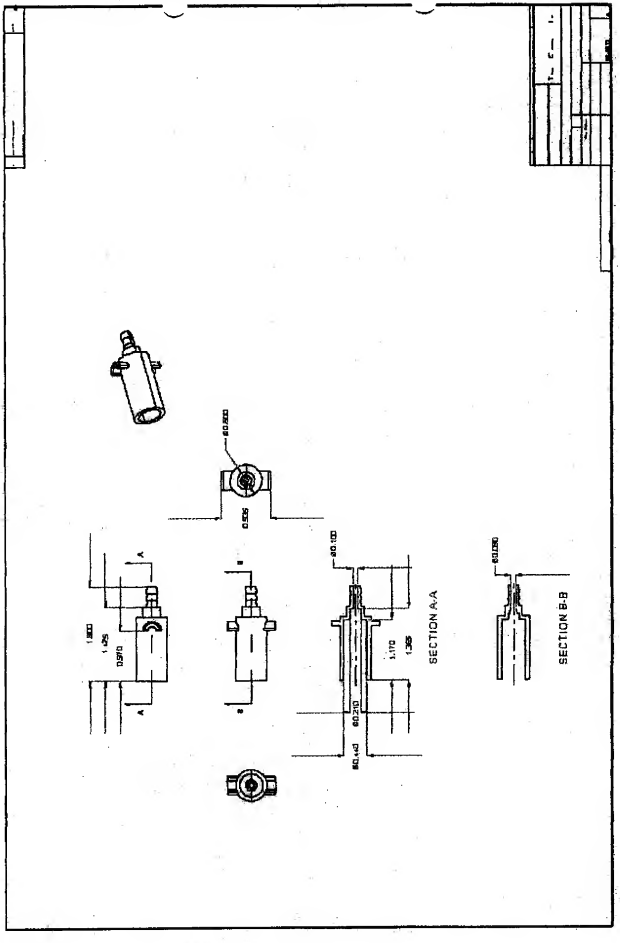
1.440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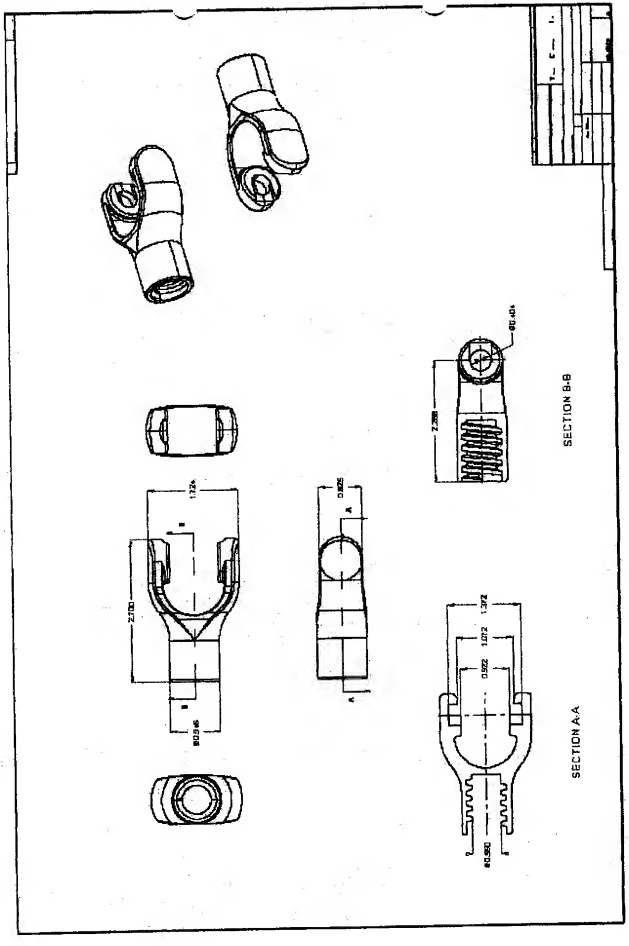
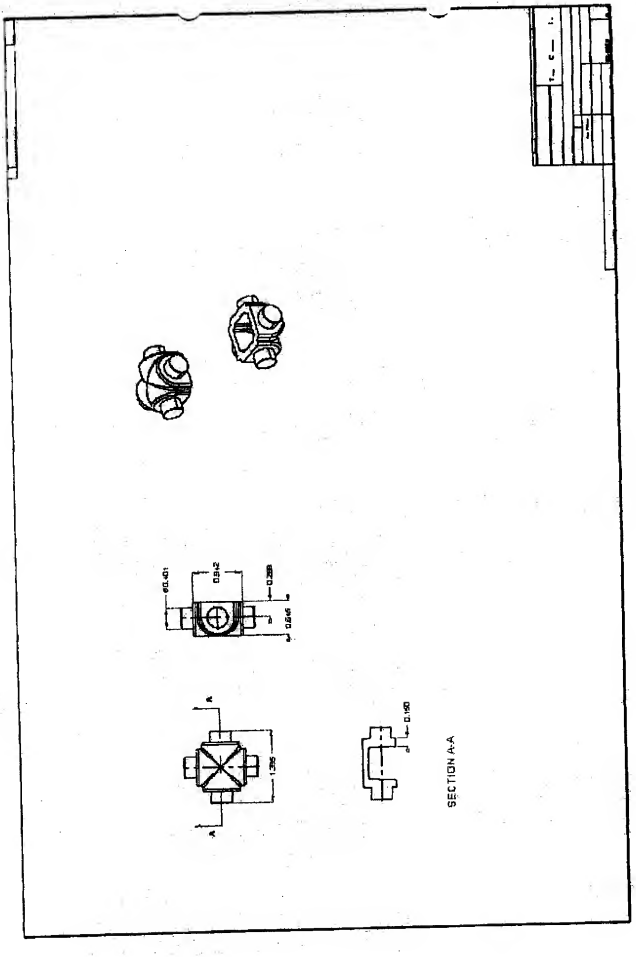
SECTION B-B


SECTION B-B
SECTION A-A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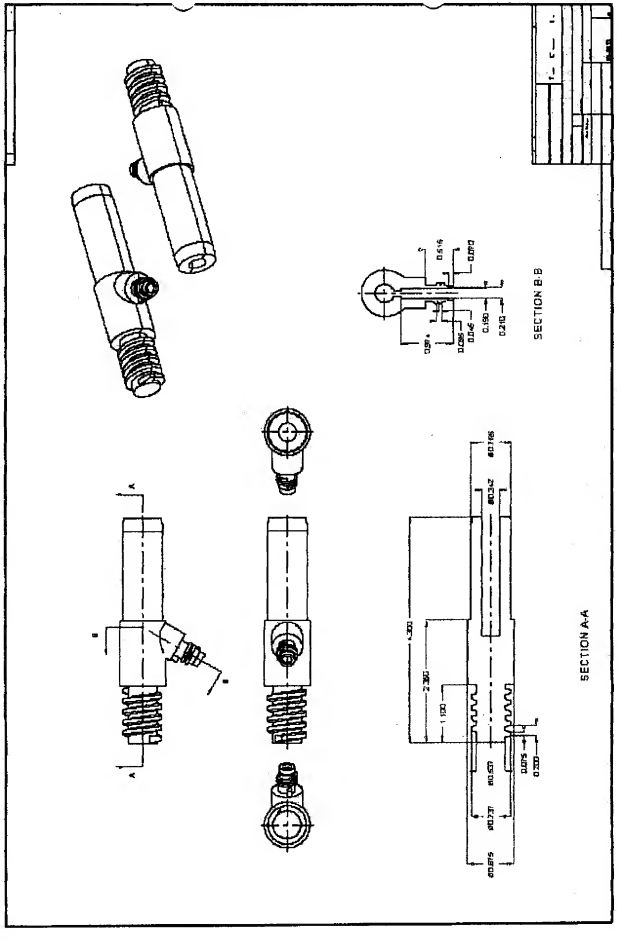
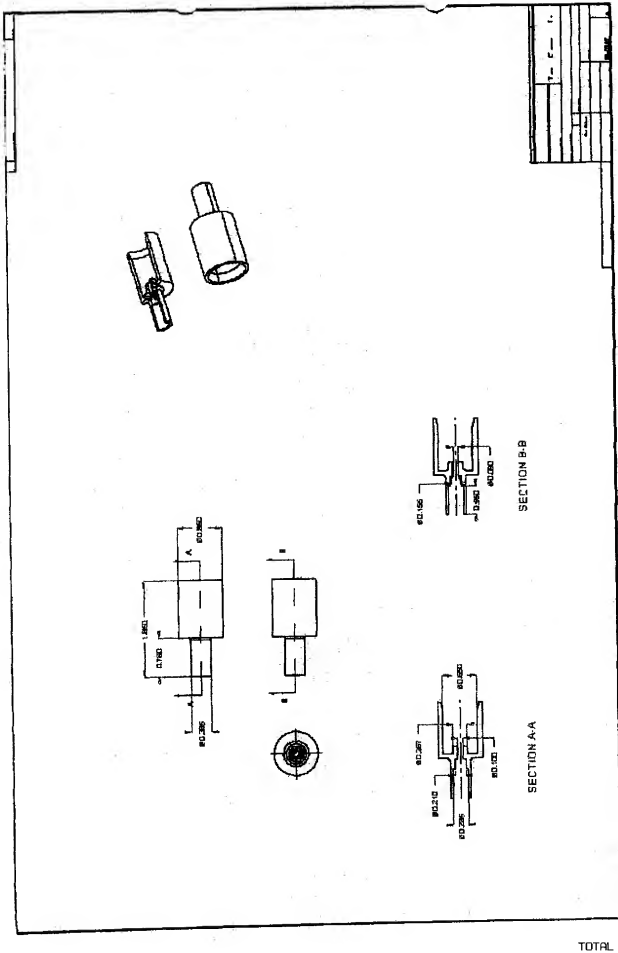

SECTION B-B
SECTION A-A


SECTION B-B
SECTION A-A

# EXHIBIT B

Reach
~~Raise~~ and Clean

January 23, 2003

**Spray Shut-off Valve**

Pressure Head: - 2.31ft head = 1lb/sqin
Say 8ft of head maximum.
Then pressure = 8/2.31*1 = 3.46 (use 3.5lb/sqin)

Bore through nozzle = 5/64 = 0.078 (use 0.080in)
Area of bore = .7854*.08*.08 = 0.005sqin
Then pressure due to 8ft of gravity = 0.02lb

**Choice of Shut-off Valve Spring**

Associated Spring/Barnes Group Inc. ( SPEC)
Stainless steel Part No.: - **C0180-018-0750S** Purchased
Free length 0.75", wire dia. 0.018
O/D 0.180"
Calculated I/D 0.144"
Nominal compression = 0.75-0.48(compressed) = 0.27
Spring rate = 4.10lbs/in
Estimated spring force = 0.27*4.1 = 1.10lb
Apply stainless steel material correction factor of *0.833
**True estimated spring force = 0.92lb**

Alternative spring Part No.: - **C0180-020-0750S**
Wire dia. = 0.020in
**True estimated spring force = 0.27*6.3*0.833 = 1.42lb**

**Pressure Tests**

Gauge hooked up by teeing in line immediately behind the spray assembly.

First sharp pull on the trigger generates about 20psi and then subsequent sharp pulls generate 35-45psi, which gives a good spray after the nozzle tip is correctly adjusted.

Slow pulls on the trigger will not provide a spray as less than 30psi is generated.

Blocking off the nozzle allows a maximum 160psi to be achieved.

**Comment**

Pump works very well with no problems priming at any time.

New spring along with separating the shut-off valve from the spray generator allows only a small drip from the nozzle. This drip does increase with more gravity applied, (bottle raised in the air), and will also continue with the spray head level with the bottom of the bottle where the vacuum effect of the full tube will empty the bottle.

A softer material for the shut-off valve along with the alternative spring listed above will probably be a major improvement.

When assembled to the pole in the working position there should be no leak, only if the whole unit is laid flat on the floor. Perhaps a stand or bracket could be attached encouraging the user to store the assembly in the vertical position at all times as an added precaution to vacuum emptying?

Adding some length to the trigger and having an upturn such that the hand does not slide off the bottom of the trigger would be an improvement as well as reducing the pull force required on the trigger.

After continued use, the ribs on the hand piece just below the trigger fulcrum bite into the hand at the base of the thumb. Perhaps these could be reshaped to provide a grip similar to that on a pistol and also let the hand ride higher up to improve the grip on the trigger?

**Spring Vendor**

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Suite 210
MAUMEE OH 43537

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Web: - www.asraymond.com

Tom Kidd